ELABORATE





Volcano Model

GROUPING

small groups

MATERIALS PER GROUP

- an empty bottle
- 1 cup of vinegar
- 4 tablespoons of baking soda
- food coloring

OBJECTIVES

Children will make a model of a volcano.

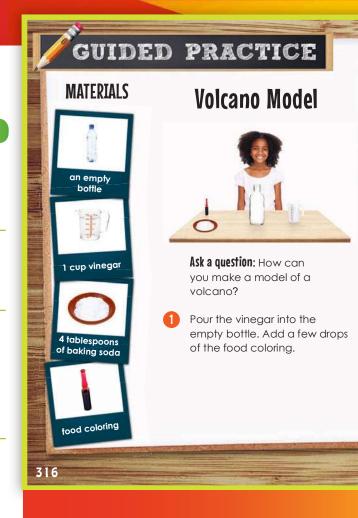
TEACHER BACKGROUND

Volcanoes are mountains with a hole or vent through which magma can reach Earth's surface. There are four main types of volcanoes: shield volcanoes, cinder cones, composite cones, and lava domes. There are more than 1,500 active volcanoes around the world. The largest volcano on Earth is located in Mauna Loa, Hawaii. There are even volcanoes on other planets. The largest volcano in our solar system is Olympus Mons on Mars.



SAFETY PRECAUTIONS

- Children should wear an apron, safety goggles, and gloves.
- Children should wash their hands after they finish the activity.



SCIENCE SKILLS

By the end of this practice, children will use the following science skills:

- Observe
- Record data
- Make a model
- Communicate



MULTIPLE INTELLIGENCE ACTIVITY

Use the Multiple Intelligence Activity for this lesson to enrich and engage the different learning styles of each student.

Quickly	add all the baking soda to the bottle.	
	pack and observe what happens.	
Record	your observations.	
Commi	unicate	
Write a	bout your model. Then, discuss and shar odel with your classmates.	e e
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EXPECTED RESULTS

Children will observe that the bottle is fizzing and frothing.

EXPLANATION

The chemical reaction between vinegar and baking soda occurs creating carbonic acid. The carbonic acid breaks down into carbon dioxide and water. The carbon dioxide is responsible for the fizzing.

CONCLUSION

Pressure inside the bottle helps the gas and liquid to escape, which is similar to what happens when a volcano erupts.

STEPS

- 1 Prepare each workstation with the materials. Organize the class into small groups of 5 to 7 children. Remind children to use caution while conducting this experiment. Red food coloring is best for this activity.
- 2 Have children add the baking soda quickly and stand back once they have added it.
- Make sure that children stay back for safety. Ask them to observe what happens.
- Record. Ask children to record their observations. Children can draw and label their drawing.

 Drawings will vary. Accept all reasonable drawings.
- Communicate. Ask each group to discuss their results with each other. Possible answer: When I added the baking soda, there was an eruption, just like a volcano.